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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,715	03/02/2007	Kai Havukainen	P3583US00	3402

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EXAMINER	
JONES, MARCUS D	

ART UNIT	PAPER NUMBER
3714	

NOTIFICATION DATE	DELIVERY MODE
01/22/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@dcpatent.com

Office Action Summary	Application No.	Applicant(s)	
	10/572,715	HAVUKAINEN, KAI	
	Examiner	Art Unit	
	Marcus D. Jones	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11, 13-18 and 20-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11, 13-18 and 20-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed 7 October 2009+ in response to the previous Non-Final Office Action (8 April 2009) is acknowledged and has been entered.

Claims 1-11, 13-18, and 20-23 are currently pending.

Claims 12 and 19 are cancelled.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11, 13-18 and 20-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 11, 13, and 15, recite the claim limitation "analyzing the music signal in response to actual game data." It is unclear how analysis on the music signal is performed in response to actual game data. The Examiner will interpret this limitation as actual game data is analyzed in response to analyzing the music data. Appropriate correction is required.

Claims 3 and 4 recite the claim limitations "analyzing the music signal in response to actual game data includes determining at least one threshold value for at least one game control parameter" and "analyzing the music signal in response to actual game data includes determining a set of limits for at least one set of game control

parameters," respectively. It is unclear how a threshold value and limits for game control parameters are determined by analyzing the music signal. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11, 13-18, 20 and 21 are rejected under 35 U.S.C. 102 (b) as being anticipated by Bolas et al. (US 5,513,129).

In reference to claims 1 and 11, Bolas discloses: A method comprising: receiving context data as a music signal, analyzing the musical signal in response to actual game data; (col 5, ln 1-2; *The control signals derived from the music may be extracted from the music directly and col 19, ln 65-67 a human operator uses the switches to record the "display" signal as part of the control track, and uses the data in storage devices 165 to load the song dependent data*); generating electronic game control data on the basis of the analysis of the music signal (col 5, ln 27-30, *Prerecorded control tracks can be indicative of more sophisticated analysis of the music signal*); and executing the game according to the generated game control data (col 6, ln 35-37, *The control track can be used to program the VR system's response and tailor the system to a song*).

In reference to claims 2 and 6, Bolas discloses: wherein analyzing the music signal includes analyzing tempo of the music and musical notes of the music (col 9, ln 40-47 and Figure 3, *each dot represents a pulse of the control track and vertical displacement represents amplitude of the drum beat*).

In reference to claim 3, Bolas discloses that the control track instructs the VR program to display the object upon determining a certain threshold of energy at a specific frequency band of the music information. Upon detecting the threshold value the control track instructs the VR program to display the object at a certain x, y and z coordinate (col 18, ln 61-67).

In reference to claim 4, Bolas discloses performing a spectral analysis of the digitized music information and testing the specified frequency bands for energy levels. The Examiner asserts that the frequency band of the song sets the limits for game parameters since the digital information can not exceed the limits of the frequency band of the song when setting game parameters.

In reference to claims 5 and 18, Bolas discloses: wherein said context data further comprises sensor data (col 14, ln 21, *sound input from a microphone*).

In reference to claims 7 and 20, Bolas discloses: further comprising receiving context data comprising visual data (col 5, ln 41-43, *the control track can include higher level information, such as pictures of a dancer or other performer*).

In reference to claims 8, 9 and 10, Bolas discloses a delay circuit to delay the music signal corresponding to the control track to enable activity in the virtual world, such as lighting and thunder (col 10, ln 3-19).

In reference to claim 13, Bolas discloses: Analyzer module comprising: an interface connectable to a data source for receiving context data as a music signal (col 5, ln 46-48; *music recorded on CD while the control tracks are recorded on a game cartridge*); an interface connectable to a game execution processor, for outputting game control data, and a processing unit for analyzing the received music signal in response to actual game data and generating said game control data in accordance with said received music signal context data (col 8, ln 37-40, *analyzer receives output of circuit and generates control signal by processing the music signal*).

In reference to claim 14, Bolas discloses: wherein said analyzer is incorporated in a synthesizer module (col 4, ln 62-67, *Acoustic Etch receives music and generates control signals used by the VR system to influence activity in the virtual world*).

In reference to claim 15, Bolas discloses: A device comprising: a first processing unit for executing an electronic game and wherein said first processing unit is adapted for executing an electronic game according to said received game control data (col 8, ln 18-20, *processor is a computer programmed with software enabling a human user to interact with the virtual environment*); an interface connectable to a data source for receiving context data as a music signal (col 5, ln 46-48; *music recorded on CD while the control tracks are recorded on a game cartridge*); a second processing unit for analyzing the music signal context data in response to actual game data and generating game control data on the basis of said analyzed music signal context data, said second processing unit being connected to said interface for receiving said music signal context data, said second processing unit further being connected to said first

processing unit for transferring generated game control data to said first processing unit (col 8, ln 37-40, *analyzer receives output of circuit and generates control signal by processing the music signal and Figure 1, lead lines 5, 6 and 7*).

In reference to claim 16, Bolas discloses: further comprising a storage for storing of context data or game control data (col 5, ln 46-48; *music recorded on CD while the control tracks are recorded on a game cartridge*).

In reference to claim 17, Bolas discloses: wherein said connection between said first and second processing units is a two-way connection (see Figure 1 and col 9, ln 18-35, *Acoustic Etch can set and control parameters in the VR processor and the VR processor can set and control parameters in Acoustic Etch*).

In reference to claim 21, Bolas discloses that the system's musical output is limited by the user's ability to use the input device (col 3, ln 20-23).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolas et al. (US 5,513,129), and further in view of Nagata et al. (US PGPub 2002/0016203).

In reference to claims 22 and 23, Bolas discloses the invention substantially as claimed except for explicitly disclosing a mobile gaming device. Nagata teaches using a portable gaming terminal in the form of a portable cellular phone (pg 3, par 59).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to have modified Bolas in view of Nagata to make the game system portable.

Response to Arguments

6. Applicant's arguments have been fully considered but they are not persuasive.

With respect to claims 1, 11, 13, and 15, Applicant asserts that neither Bolas nor Nagata disclose analyzing music signal context data in response to actual game data, as now clamed.

The Examiner respectfully disagrees.

As discussed above in the rejection of claims 1 and 11, Bolas discloses the control signals derived from the music may be extracted from the music directly. Bolas also discloses that a human operator uses the switches to record the "display" signal as

part of the control track, and uses the data in storage devices 165 to load the song dependent data (col 5, ln 1-2; and col 19, ln 65-67). As broadly claimed. Bolas continues to read upon the claim limitations. Pursuant to the above 112, second paragraph rejections, the Examiner invites the Applicant to amend the claims in manner that more explicitly illustrates how the instant application differs from prior art of record.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus D. Jones whose telephone number is (571)270-3773. The examiner can normally be reached on M-F 9-5 EST, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John M. Hotaling can be reached on 571-272-4437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marcus D. Jones/
Examiner, Art Unit 3714

/John M Hotaling II/
Primary Examiner, Art Unit 3714